

Pursuant to ET Docket 03-137 and 12-357:

The research base on EMF signals from wireless communications has been growing over the past two decades. The ratio of studies showing biological effects (E) vs. those showing no effects (NE) as of 2006 was overall 56/44. For those funded by the industry, the ratio was about 1:2, while for non-industry funded studies it was the opposite, about 2:1.

From 2007-2012, regardless of funding source, looking at neurological effects only, the ratio of effects (E) vs. no effects (NE) is 65/35, and for genetic effects the ratio is 62/38. So you can see that over time, there has been a pretty consistent signal that biological effects likely do exist. (Studies analyzed and tallied by Henry Lai, University of Washington, Bioinitiative Report).

FCC limits do not take all these studies into account. They are based on a traditional notion that unless the intensity of the EMF reaches a certain high level so that it raises the temperature of the organ or organism enough to cause heat damage, then everything's okay. That goes against what the science seems to be indicating.

For this reason, it is time to review the science and reevaluate the existing limits. I know that the IEEE Subcommittee 4 of the ICES (of which I was a member) has come up with its own proposal of new limits. And I'd like to caution you that their new limits are, in essence, even less protective of the public than existing ones. They propose averaging heating over a ten times larger area of tissue, which then allows for even more hot spots than previously. If you've ever microwaved a meal and found hot and cold spots in the result, you will realize that an "average" temperature tells you nothing about what could really be going on for sensitive, critical areas of the body, like eyes, brain, and testes. The application of physics only does not tell you the biological story of the organism. Brains are not averageable sacks of gel.

The area of bioelectromagnetics is a very complex one. It would be easy to be dazzled by a succinct explanation of assurances offered by a wealthy interested party. I hope the committee making this decision is more astute than that. Affecting everyone, of all ages, day in and day out, this is no small issue, and the concerns of scientists, including some from senior and retired scientists from our federal health agencies, have been disregarded up to now. I hope the committee will take this very seriously and find ways to gather the input from true experts in the field (just as IARC did, when it designated radiofrequencies as possible carcinogens), steering clear of industry influence, and proceed accordingly. Other western countries are doing so. Why not in America?

Thank you.

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